STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 0/5/1, 7/9ASource: 0/5/1, 7/9ADate Processed by STIC: 0/5/1, 7/9A

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 4.4.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
 U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street,
 Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 10/5/1, 7/9 A
ATTN: NEW RULES CASES:	PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE
1Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters , instead.
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
8Skipped Sequences . (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000
9Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
Invalid <213> Response	Per 1.823 & Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence. (see item 11 below)
11Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules
/ 12PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13 Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFW16

RAW SEQUENCE LISTING DATE: 02/27/2007 PATENT APPLICATION: US/10/511,719A TIME: 11:08:37

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\02272007\J511719A.raw

2 <110> APPLICANT: REGEN Biotech. Inc. 4 <120> TITLE OF INVENTION: The method for measuring the amount of Betai protein and diagnostic kit using the same 7 <130> FILE REFERENCE: 2fpo-10-14 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/511,719A C--> 9 <141> CURRENT FILING DATE: 2004-11-26 9 <160> NUMBER OF SEQ ID NOS: 12 11 <170> SOFTWARE: KopatentIn 1.71

ERRORED SEQUENCES

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37 Cys Pro Ala Ala Leu Pro Leu Ser Asn Leu Tyr Glu Thr Leu Gly Val 105

40 Val Gly Ser Thr Thr Thr Gln Leu Tyr Thr Asp Arg Thr Glu Lys Leu 120

43 Arg Pro Glu Met Glu Gly Pro Gly Ser Phe Thr Ile Phe Ala Pro Ser 135

46 Asn Glu Ala Trp Ala Ser Leu Pro Ala Glu Val. Leu Asp Ser Leu Val

E--> 47 145 150 49 Ser Asn Val Asn Ile Glu Leu Leu Asn Ala Leu Arg Tyr His Met Val

170 52 Gly Arg Arg Val Leu Thr Asp Glu Leu Lys His Gly Met Thr Leu Thr

180 185 55 Ser Met Tyr Gln Asn Ser Asn Ile Gln Ile His His Tyr Pro Asn Gly

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Does Not Comply Corrected Diskette Needed

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E>	97 98 100 101 103 104 106	Asr Leu Val	Ser Leu Tyr 45 Phe	Val Leu 43 His	42 Arg 5 Gly	Lys 0 Asn Gln	Asp His Thr Asn	Ile	Thr Ile Glu 455	Pro Lys 44 Thr	Pro 42 Asp 0	41 Ile 5 Gln Gly	.0 Asp Leu Gly	Ala Ala Lys	His Ser Lys 460	Thr Lys 445 Let	430 5 Tyr 5 1 Arg	415	480	
E>	97 98 100 101 103 104 106 107	Asr Leu Val	Ser Leu Tyr 45 Phe	Val Leu 43 His O Val	42 Arg 5 Gly Tyr	Lys 0 Asn Gln Arg	Asp His Thr Asn	Ile Leu Ser 470	Thr Ile Glu 455 Leu	Pro Lys 44 Thr	Pro 42 Asp 0 Leu	41 Ile 5 Glm Gly	.0 Asp Leu Gly	Ala Ala Lys Ser 475	His Ser Lys 460 Cys	Thr Lys 445 Let	430 5 Tyr 5 1 Arg	415	480	
E>	97 98 100 101 103 104 106 107	Asr Leu Val 465	Ser Leu Tyr 45 Phe	Val Leu 43 His O Val	42 Arg 5 Gly Tyr	Lys 0 Asn Gln Arg	Asp His Thr Asn	Ile Leu Ser 470	Thr Ile Glu 455 Leu	Pro Lys 44 Thr	Pro 42 Asp 0 Leu	41 Ile 5 Gln Gly Glu Leu	.0 Asp Leu Gly	Ala Ala Lys Ser 475	His Ser Lys 460 Cys	Thr Lys 445 Let	430 5 Tyr 5 1 Arg	415		
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E> E> E>	97 98 100 101 103 104 106 107 109 110 112 113	Asr Leu Val 465 Ala Val	Ser Leu Tyr 45 Phe His	Val Leu 43 His O Val Asp	42 Arg 5 Gly Tyr Lys Pro 5	Lys O Asn Gln Arg Arg Pro O0	Asp His Thr Asn Gly 485 Met	Ile Leu Ser 470 Arg	Thr Ile Glu 455 Leu Tyr	Pro Lys 44 Thr Cys Gly	Pro 42 Asp 0 Leu Thr Met	41 Ile 5 Glm Gly Glu Leu 4 Asp	Asp Leu Gly Asn Phe 90 Val	Ala Ala Lys Ser 475 Thr	His Ser Ser Ser His His Met	Thr Lys 445 Let Ile Asp	430 5 Tyr 5 1 Arg 2 Ala 2 Arg 4 Asp 510			
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Input Set : A:\PTO.RJ.txt

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	282	Asn	Ser	Asn	Ile	Gln	Ile	His	His	Tvr	Pro	Asn	Glv	Ile	Val	Thr	Val		
E>			130						135	- 2 -			2		140				
		N an			7.~~	T 011	T 011	Tara		7 cm	Uic	ui c	ת ה	The		C7 11	Wa I		
_			Cys	Ala	Arg	ьец		_	AIA	Asp	пір	HIS			ASII	Gry	vai		
E>			_		_			150	_			_		L55		_		•	160
	288	Val	His	Leu	Ile	Asp	Lys	Val	Ile	Ser	Thr	Ile	Thr	Asn	Asn	Ile	Gln		
E>	289					1	L65						170					175	
	291	Gln	Ile	Ile	Glu	Ile	Glu	Asp	Thr	Phe	Glu	Thr	Leu	Arq	Ala	Ala	Val		
E>						30		-			185			J			190		•
		Δ] =	Δla	Ser			Δen	Thr	Met	T.e.11			Δen	Glv	Gln	ጥኒታ			
7 2 .		TIG	MΤά			шeu	UOII	1111	ric t			O L Y	L'OIT	Gry	G111		1111		
E>		_	_	195			_	~ -		200		_	~-	_	_	205	-1		
		Leu		Ala	Pro	Thr	Asn	GIu		Phe	·GIu	Lys	11e	Pro		GIu	Thr		
E>			210						215						220				
	300	Leu	Asn	Arg	Ile	Leu	Gly	Asp	Pro	Glu	Ala	Leu	Arq	Asp	Leu	Leu	Asn		
				_			-	-					_	-					

Input Set : A:\PTO.RJ.txt

_	201	205						~~~											240)
E>			•••	-1.	•	T		230	N - L	a		~1		235	**- 7	7.7 -	01		240	1
_		Asn	HIS	TIE	Leu	_		Ala	Met	Cys	Ата			тте	vai	Ala	GIY	055		
E>		_	_				245			_,	_,		250		~-1	_	.	255		1
_		ьeu	ser	vai			ьeu	Glu	GIY	Thr			GIU	vaı	GIY	Cys				
E>			_			60		_		_		65		_	_	_	270			
		GLY	Asp			Thr	He	Asn	GIY	_		He	ше	Ser	Asn		Asp			
E>		_		27				_		280	_					285				
		Ile			Thr	Asn	Gly	Val		His	Tyr	Ile	Asp			Leu	He			
E>			29						295				_		300					
			Asp	Ser	Ala	Lys	Thr	Leu	Phe	Glu	Leu	Ala	Ala	Glu	Ser	Asp	Val .			
E>								310						315					320	
	318	Ser	Thr	Ala	Ile	Asp	Leu	Phe	Arg	Gln	Ala	Gly	Leu	Gly	Asn	His	Leu			
E>	319						325					:	330					335	•	i
	321	Ser	Gly	Ser	Glu	Arg	Leu	Thr	Leu	Leu	Ala	Pro	Leu	Asn	Ser	Val	Phe			
E>	322				3	40					34	45					350			
•	324	Lys	Asp	Gly	Thr	Pro	Pro	Ile	Asp	Ala	His	Thr	Arg	Asn	Leu	Leu	Arg			1
E>	325			3	55					360	0					365				
	327	Asn	His	Ile	Ile	Lys	Asp	Gln	Leu	Ala	Ser	Lys	Tyr	Leu	Tyr	His	Gly			1
E>	328		37	0					375						380					/ 0 m
	330	Gln	Thr	Leu	Glu	Thr	Leu	Gly	Gly	Lys	Lys	Leu	Arg	Val	Phe	Val	Tyr			7, 20, 31
E>	331	385					:	390					:	395					400	1 gover
	333	Arg	Asn	Ser	Leu	Cys	Ile	Glu	Asn	Ser	Cys	Ile	Ala	Ala	His	Asp	Lys			Į.Ū
E>							405						110					415		
	336	Arg	Gly	Arg	Tyr	Gly	Thr	Leu	Phe	Thr	Met	Asp	Arg	Val	Leu	Thr	Pro			1
E>						20					4:						430			1
	339	Pro	Met	Gly	Thr	Val	Met	Asp	Val	Leu	Lys	Gly	Asp	Asn	Arg	Phe	Ser	•		1
E>					35					44						445				1
	342	Met			Ala	Ala	Ile	Gln	Ser	Ala	Gly	Leu	Thr			Leu	Asn			1
E>			450						455						160					
		_	Glu	Gly	Val	Tyr	Thr	Val	Phe	Ala	Pro	Thr	Asn	Glu	Ala	Phe	Arg			
E>								470						175					480	
_		Ala	Leu	Pro	Pro	_		Arg	Ser	Arg	Leu	Leu	GIY	Asp	Ala	Lys	GIu			ļ ·
E>		_		_	_ _		485	_	•			_ 4:	90		_		_	495		
_		Leu	Ala	Asn			ьуs	Tyr	His	IIe			GIu	шe	ьeu	vai				
E>		~7	~ 7			00	_		_	_		05	_	~1	~ 3	_	510			
_		GIY	GLĀ			Ala	Leu	Val	Arg			Ser	ьeu	GIn	GIY		гàг			
E>		-	~1		15	-	-	_	_	520		_	**- 7	3	+	525	5			
13 -		ьeu			ser	ьeu	гла	Asn		vaı	val	ser	val	ASII		GIU	PT.O			}
E>		77.7	530		D	7	T1_	14 - h	535	(T)	3	01	17a]	1707	540	77m 7	T1.			l
ъ.			ATG	GIU	PLO	Asp		Met	ATG	ınr	ASII	GTÀ			птр	val	тте		560	1
E>			7	*** 7	T	01		550	71-	3	7	D		555	7 ~~~	~1	7		500	1
		Thr	ASII	vaı	ьeu			Pro	Ala	ASII	Arg			Gru	Arg	СТУ	Asp	E7E		
E>		C1	T 011	ת דת	7. ~~		565	T 011	C1	т1 ~		;	570					575		
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Input Set : A:\PTO.RJ.txt

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			0> SI											•					\	
	451	Ala	Gly	Pro	Ala	Lys	Ser	Pro	Tyr	Gln	Leu	Val	Leu	Gln	His	Ser	Arg		1	
E>	452	1					5						10		•			15	1	İ
	454	Leu	Arg	Gly	Arg	Gln	His	Gly	Pro	Asn	Val	Cys	Ala	Val	Gln	Lys	Val			
E>						20					2						30			1
	457	Ile	Gly	Thr	Asn	Arg	Lys	Tyr	Phe	Thr	Asn	Cys	Lys	Gln	Trp	Tyr	Gln			
E>				3	_					40						45				1
		Arg	_	Ile	Cys	Gly	Lys	Ser		Val	Ile	Ser	Tyr	Glu		Cys	Pro			
E>		~7	_50	~ 1	_		_	~1	55	-	~1	~	_		60		n			[
		_	Tyr	GIU	гàг	Val	Pro	GIY	GIU	гуѕ	GIY	Cys	Pro	Ala	Ата	ьeu	Pro		00	}
E>			eor	7 cn	T 011	Tyr	Clu	/U Thr	T 011	C111	17 a 1	17-1	Clv	/ 5	Thr	Thr	Thr		80	1
E>		пец	Ser	ASII	пец	TYT	85	1111	пец	Gry	vai	vaı	on Oly	Ser	1111	1111	# 111	95		1
1 /		Gln	Leu	Tvr	Thr	Asp		Thr	Glu	Lvs	Leu	Ara	Pro	Glu	Met	Glu	Glv	,,,		
E>				-1-		00	5			-2-		05					110			1
		Pro	Gly	Ser		Thr	Ile	Phe	Ala	Pro	Ser	Asn	Glu	Ala	Trp	Ala				1
E>			-	11!						120					-	125				
	476	Leu	Pro	Ala	Glu	Val	Leu	Asp	Ser	Leu	Val	Ser	Asn	Val	Asn	Ile	Glu			}
E>	477		130						135					:	140					- 1
	479	Leu	Leu	Asn	Ala	Leu	Arg	Tyr	His	Met	Val	Gly	Arg	Arg	Val	Leu	Thr			1
E>				_	_			150		_		_		155		_	_		160	
_		Asp	GIu	Leu	Lys	His	_	Met	Thr	Leu	Thr			Tyr	GIn	Asn	ser	155		San
E>		7 an	т1.	C15	т1.		165	Тиг	Dro	Λαn	C111		170	Th.∽	บาไ	λαν	Carc	175		50.00
E>		ASII	116	GIII		His 80	птъ	ıyı	FIU	ASII		35	vai	1111	vai	Poli	190			1 0
		Ala	Ara	Leu		Lys	Ala	Asp	His	His		_	Asn	Glv	Val	Val				9
E>			5	19!		-1-				200				1		205				- 1
		Leu	Ile	Asp	Lys	Val	Ile	Ser	Thr	Ile	Thr	Asn	Asn	Ile	Gln	Gln	Ile			1
E>			210	_	-				215						220					1
	494	Ile	Glu	Ile	Glu	Asp	Thr	Phe	Glu	Thr	Leu	Arg	Ala	Ala	Val	Ala	Ala			1
E>								230						235					240	\
		Ser	Gly	Leu	Asn	Thr		Leu	Glu	Gly	Asn	Gly	Gln	Tyr	Thr	Leu	Leu			\
E>			_	— 1	_		245	-1	~ 3	_			250	~-	m1	_	_	255		\
_		Ala	Pro	Thr		Glu	Ala	Phe	Glu	Lys			Ser	Glu	Thr	Leu				\
E>		7	T1.	7		60 2 ~ ~ ~	D	a 1	7 J -	T	26		T	T 0	7	7	270			1
E>		Arg	TTE		75	Asp	PIO	GIU	Ala	280	_	Asp	ьeu	ьеu	ASII	285	HIS			1
<u></u> >		Tle	Leu			Ala	Met	Cve	בו∆			Tle	۷al	Δla	Glv		Ser			
E>		-10	290	_		111 CI	1100	Cys	295	CIU	111 U	***	¥ W I		300	Leu	JCI			1
		Val			Leu	Glu	Glv	Thr		Leu	Glu	Val	Glv			Glv	Asp			1
E>								310						315		- 4			320	/
			Leu	Thr	Ile	Asn			Ala	Ile	Ile	Ser			Asp	Ile	Leu			. /
E>							325	•					330	•	=			335		\vee
	515	Ala	Thr	Asn	Gly	Val	Ile	His	Tyr	Ile	Asp	Glu	Leu	Leu	Ile	Pro	Asp			
E>	516				34	40					34	15					350			

Input Set : A:\PTO.RJ.txt

_		Ser	Ala	_		Leu	Phe	Glu	Leu			Glu	Ser	Asp	Val		Thr	
E>		77-	T1.	359		Dha	71	Q1	77.	360		a 1	7 ~~	774 -	T	365	~1··	
E>		Ата	370		ьец	Pile	Arg	GIII	375	GIY	ьец	GIY	ASII	пі	380	ser	Gry	1\
E>		Sar			Lau	Thr	Leu	Lan		Dro	T.011	λen	Car	T=1		Lare	Aen	1
E>			Giu	Arg	пеп	1111		390	міа	PLO	neu	ASII		95	FIIE	пуъ	Asp	400
B>			Thr	Pro	Pro	Tle	Asp		Hic	Thr	Δτα	Δen	-		Δra	Δan	His	100
E>		Gry	1111	110	110		405	mu	1115	1111	n g		110	шси	n. g	11011		415
67		Tle	Tle	Lvs	Δsn		Leu	Δla	Ser	Lvs	Tvr			Hic	Glv	Gln	Thr	113
E>		110	110	2,5		20	Lea	u	501	טעב	42		- 1 -		CLY	0.1.1	430	
		Leu	Glu	Thr			Gly	Lvs	Lvs	Leu			Phe	Val	Tvr	Ara		·
E>					35	0-1	0-1	-1-	-1-2	440	_				-1-	445		1
·		Ser	Leu			Glu	Asn	Ser	Cvs			Ala	His	Asp	Lvs		Glv	1
E>			450						455						160		_	\
	539	Arq	Tyr	Gly	Thr	Leu	Phe	Thr	Met	Asp	Arq	Val	Leu	Thr	Pro	Pro	Met	φ
E>		_	-	-				470		-	_			175				480
	542	Gly	Thr	Val	Met	Asp	Val	Leu	Lys	Gly	Asp	Asn	Arg	Phe	Ser	Met	Leu	. \
E>	543					4	485					4	190					495 .
	545	Val	Ala	Ala	Ile	Gln	Ser	Ala	Gly	Leu	Thr	Glu	Thr	Leu	Asn	Arg	Glu	,
E>						00					50						510	
	548	Gly	Val	Tyr	Thr	Val	Phe	Ala	Pro	Thr	Asn	Glu	Ala	Phe	Arg	Ala	Leu	10 au
E>					15					520						525		Some
_		Pro		-	Glu	Arg	Ser	Arg		Leu	Gly	Asp	Ala	Lys		Leu	Ala	12 900
E>		_	530		_	_			535	_	~7		_		540	~1	a 1	10
			TTE	Leu	ьуs	Tyr	His		GIA	Asp	GIu	шe			ser	GIY	GIY	560
E>			C1	ח ד ת	T 011	37a I		550	T	Com	T 011	~1 n	_	355	Tira	T 011	C1,,	560
E>		11e	GIY	Ald	ьеu		Arg	ьеи	пуѕ	ser	ьeu	_	570	Asp	пуѕ	ьеи	Giu	575
<u> </u>		va 1	Ser	ī.eu	Lve		Asn	Val	Val	Ser	va1	_		Glu	Pro	Val	Δla	3/3
E>		• • • •	501		_	30	11011	•	· u =	561	58		_,,,	014			590	
- , ´		Glu	Pro	Asp			Ala	Thr	Asn	Glv			His	Val	Ile	Thr		
E>				_	95					600						605		
	566	Val																<i>)</i> \
	595	<210)> SI	EQ II	ON C	: 7												
	596	<21	L> LE	ENGTI	I: 14	10												
	597	<212	?> T	PE:	PRT													/
						Art:	ifici	ial S	Seque	ence				,				
				EATUF														
							CION:	: Bet	aig-	-h3 [)-IV	(1X)	amir	o ac	cid s	seque	ence	\ /
					ICE:		~-3	_,			_		_	_	~-3	_	_	\ /
_			Thr	Pro	Pro	Met	Gly	Thr	Val	Met	Asp	vaı		Lys	GIY	Asp	Asn	15 \ /
E>			Dl	a	34-4	T	5	77-	21-	- 1 -	~1	0	10	~1	T	m1	a1	15 \ /
17		Arg	Pne	ser			Val	Ата	Ala	тте			Ala	GIY	Leu	Thr		1 (
E>		Th∽	Levi	λαν	_	20 Glu	G3 **	7727	Mr~	Thr		Phe	~ [מ	Dro	ть∽	7 0 20	30 Glu	\ `
E>		THE	ьeu	_	Arg	GIU	Gly	vaı	TAL	40		rne	ATG	PLO	TIII	45	GIU	\
E>		Δ] =	Dhe		_	T.e.ii	Pro	Pro	Ara			Ser	Δτα	Len	T.e.11		Asn	\
E>		AIG	50	y	ALU	سات	110	110	55	Jiu	9		9	Leu	60	UL y	-101	\
		Ala		G] 11	Leu	A]a	Asn	IJe		Lvs	Tvr	His	Ile	G] v		Glu	Ile	/}
			-1-							-1-	-1-			1	<u>-</u> -			

Input Set : A:\PTO.RJ.txt

												•								\	
E>		65						70						75					80	\	
	620	Leu \	/al	Ser	Gly	Gly	Ile	Gly	Ala	Leu	Val	Arg	Leu	Lys	Ser	Leu	Gln			1	
E>							85						90					95		1	
	623	Gly A	Asp	Lys	Leu	Glu	Val	Ser	Leu	Lys	Asn	Asn	Val	Val	Ser	Val	Asn				
E>						00						05					110				
	626	Lys (Glu	Pro	Val	Ala	Glu	Pro	Asp	Ile	Met	Ala	Thr	Asn	Gly	Val	Val			1	
E>	627			11	L5					120	0					12	5			- 1	
	629	His V	<i>V</i> al	Ile	Thr	Asn	Val	Leu		Pro	Pro	Ala	Asn							- 1	
E>			130						135						140					- 1	
	633	<210:	> SE	Q II	ON C	: 8														1	
		<211:				30					•									- 1	
		<212																		ľ	
		<213:				Art:	ific	ial s	Seque	ence											•
		<220:																		· [.	
		<223					rion	: Bet	caig	-h3 1	D-IV	(2X)	amiı	no a	cid s	seque	ence				
		<400>											_	_		_	_				
		Leu 1	Thr	Pro	Pro	Met		Thr	Val	Met	Asp			Lys	GIŸ	Asp	Asn				
E>		1		_		_	5						10		_	1	~ 7	15		1	
_		Arg I	Phe	Ser			Val	Ala	Ala	He	GIn	Ser	Ala	GLY	Leu	Thr				Į.	
E>		_, _	_	_	_	20	~-7		_	1		25			 1	•	30			1	
_		Thr I	Leu .		_	Glu	GIY	Val	Tyr	_		Pne	Ala	Pro	Thr		GIU			1	
E>			-1	35		.	5	5	•	4(-			.	.	45	3			1	
		Ala I		Arg	Ата	ьeu	Pro	Pro		GIU	Arg	ser	Arg	ьeu		GIY	Asp			\	
E>		77 - 7	50	<u>م</u> ا	T	7 J _	7	T1_	55	T	m	77.5 ~	Tla	~1	700	G1	T10				
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E>			7-1	Co~	C1	C1	Tla	70	. הרג	T 011	17-1	7.~~	T 011	75	802	T 011	Cln.		80	\	
E>		Leu V	vaı	ser	GIY	Gry	85	GIY	AIA	Leu	vaı		90	пуъ	SET	пеп	GIII	95		1	عسم ا
6>		Gly A	\en	Tare	T.011	Glu		Sar	T.011	Luc	Δen	-		Val	Ser	Val	Δen	93	•	\ \	3, 20
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457		Lys (27 11	Pró	-		Glu	Pro	Asn	Tle			Thr	Asn	Glv	Val				1	_
E>		2,5	J_ u	11			014		ı.p	120					0_7	125				}	
		His V	Jal			Asn	Val	Leu	Gln		-	Ala	Asn	Leu	Thr	-	Pro				
E>			130						135						140						
		Met C		Thr	Val	Met	Asp	Val		Lvs	Glv	Asp	Asn	Arq		Ser	Met			(
E>			1				_	150		-1-	1			155					160		
		Leu \	Jal .	Ala	Ala	Ile	Gln	Ser	Ala	Glv	Leu	Thr	Glu	Thr	Leu	Asn	Arq				ĺ
E>						_	165			2			70				J	175			ľ
	676	Glu G	Gly '	Val	Tyr	Thr	Val	Phe	Ala	Pro	Thr	Asn	Glu	Ala	Phe	Arg	Ala				ĺ
E>			-			30						85					190				
	679	Leu I	Pro	Pro	Arg	Glu	Arg	Ser	Arg	Leu	Leu	Gly	Asp	Ala	Lys	Glu	Leu			- 1	
E>	680			19	95					200)	_				205				- 1	
	682	Ala A	Asn	Ile	Leu	Lys	Tyr	His	Ile	Gly	Asp	Glu	Ile	Leu	Val	Ser	Gly			- 1	
E>			210			_			215						220					- 1	
	685	Gly 1	[le (Gly	Ala	Leu	Val	Arg	Leu	Lys	Ser	Leu	Gln	Gly	Asp	Lys	Leu			- 1	
E>	686	225		_			2	230					2	235					240		
	688	Glu V	/al	Ser	Leu	Lys	Asn	Asn	Val	Val	Ser	Val	Asn	Lys	Glu	${\tt Pro}$	Val			/	
E>	689					2	245					25	50					255		/	
	691	Ala G	3lu :	Pro	Asp	Ile	Met	Ala	Thr	Asn	Gly	Val	Val	His	Val	Ile	Thr				

Input Set : A:\PTO.RJ.txt

E>	692				:	260					26	55					270		
		Asn	Val	Leu			Pro	Ala	Asn		₹`	-					- • •		
E>					75					280)								
		<210)> SI	EQ II		. 9													- 1
				ENGT															į
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				RGAN:		Art	ific	ial s	Segue	ence									
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				EQUE								(,							1
				Pro			Glv	Thr	Val	Met	Asp	٧al	Len	Lvs	Glv	Asp	Asn		ļ
E>		1		110			5				1101		10	_,_	0-1			15	1
4 /			Phe	Ser	Met	T. e 11	-	Δla	Δla	Tle	Gln			Glv	Len	Thr	Glu		1
E>		9	1110	DCI		20	• • • •	11.1α	1114			25		017			30		1
B>		Thr	T.e.11	Asn			Glv	Va1	Tur	Thr			Δla	Pro	Thr	Asn			1
E>			 cu	3!		014	U -y.		-1-	4()					45			1
B>		Δla	Dhe	Arg		T. 2 11	Pro	Pro	Δra	Glu	Δra	Ser	Ara	T.e11	Len		Asp		
E>		nia	50	m 9	niu	alc u	110	110	55	014	9	001	**** 5	u	60	O	1106		
B>		Δla		Glu	T.e.11	Δla	Δsn	Tle		Lvs	Tvr	His	Tle	Glv		Glu	Tle		
E>		65	טעם	OIG	пси	mu	11011	70		1,5	-1-			75	1101	014			80
B>			Val	Ser	Glv	Glv	Tle		Ala	Len	Val	Ara	Len		Ser	Leu	Gln		
E>		пси	Val	DCI	O±y	O _F y	85	Q_y	711u	шец	val		90	_,_	501	200	0111	95	
		Glv	Asp	Lys	Len	Glu		Ser	Len	Lvs	Asn		-	Val	Ser	Val	Asn		
E>		Cry	riop	цуо		00	Val	501	100	_,5)5	• • • • • • • • • • • • • • • • • • • •	• • • •	001		110		
		Lvs	Glu	Pro	_		Glu	Pro	Asp	Ile			Thr	Asn	Glv	Val			
E>			O_u		L5		O.L.u		1100	120					0-1	125			
		His	Val	Ile	-	Asn	Val	Len	Gln			Ala	Asn	Leu	Thr		Pro		
E>			130						135						140				
		Met		Thr	Val	Met.	Asp	Val		Lvs	Glv	Asp	Asn	Ara		Ser	Met		
E>			1					150		-1-	1			155					160
			Val	Ala	Ala	Ile			Ala	Glv	Leu	Thr	Glu	Thr	Leu	Asn	Arq		
E>					,		165			2			170					175	
		Glu	Glv	Val	Tvr	Thr	Val	Phe	Ala	Pro	Thr	Asn	Glu	Ala	Phe	Arq	Ala		
E>			2	-	_	80						35					190		
	744	Leu	Pro	Pro	Arq	Glu	Arq	Ser	Arq	Leu	Leu	Glý	Asp	Ala	Lys	Glu	Leu		
E>				19	-					200		•	-		-	205			
		Ala	Asn	Ile		Lys	Tyr	His	Ile	Gly	Asp	Glu	Ile	Leu	Val	Ser	Gly		
E>			210			_	•		215	•	-				220		•		
		Gly		Gly	Ala	Leu	Val	Arq	Leu	Lys	Ser	Leu	Gln	Gly	Asp	Lys	Leu		
E>		_		•				230		•				235	-	-			240
			Val	Ser	Leu	Lvs			Val	Val	Ser	Val			Glu	Pro	Val		
E>						_	245						250	•				255	
		Ala	Glu	Pro	Asp			Ala	Thr	Asn	Gly			His	Val	Ile	Thr		
E>					_	50						55					270		
		Asn	Val	Leu			Pro	Ala	Asn	Leu			Pro	Met	Glv	Thr			
E>				27	_					280					- 2	285			
		Met	Asp	Val		Lvs	Glv	Asp	Asn			Ser	Met	Leu	Val		Ala		
E>			290			-1-	1	P	295						300				
		Ile		Ser	Ala	Glv	Leu	Thr		Thr	Leu	Asn	Ara	Glu		Val	Tyr		
						1							5		1				

Input Set : A:\PTO.RJ.txt Output Set: N:\CRF4\02272007\J511719A.raw 320 E--> 766 305 310 768 Thr Val Phe Ala Pro Thr Asn Glu Ala Phe Arg Ala Leu Pro Pro Arg 325 335 E--> 769 771 Glu Arg Ser Arg Leu Leu Gly Asp Ala Lys Glu Leu Ala Asn Ile Leu E--> 772 774 Lys Tyr His Ile Gly Asp Glu Ile Leu Val Ser Gly Gly Ile Gly Ala E--> 775 360 777 Leu Val Arg Leu Lys Ser Leu Gln Gly Asp Lys Leu Glu Val Ser Leu E--> 778 375 780 Lys Asn Asn Val Val Ser Val Asn Lys Glu Pro Val Ala Glu Pro Asp 400 E--> 781 385 390 783 Ile Met Ala Thr Asn Gly Val Val His Val Ile Thr Asn Val Leu Gln 405 415 786 Pro Pro Ala Asn 787 790 <210> SEQ ID NO: 10 791 <211> LENGTH: 560 792 <212> TYPE: PRT 793 <213> ORGANISM: Artificial Sequence 795 <220> FEATURE: 796 <223> OTHER INFORMATION: Betaig-h3 D-IV(4X) amino acid sequence 799 <400> SEQUENCE: 10 800 Leu Thr Pro Pro Met Gly Thr Val Met Asp Val Leu Lys Gly Asp Asn E--> 801 15 1 803 Arg Phe Ser Met Leu Val Ala Ala Ile Gln Ser Ala Gly Leu Thr Glu E--> 804 20 806 Thr Leu Asn Arg Glu Gly Val Tyr Thr Val Phe Ala Pro Thr Asn Glu 809 Ala Phe Arg Ala Leu Pro Pro Arg Glu Arg Ser Arg Leu Leu Gly Asp 50 812 Ala Lys Glu Leu Ala Asn Ile Leu Lys Tyr His Ile Gly Asp Glu Ile E--> 813 65 80 815 Leu Val Ser Gly Gly Ile Gly Ala Leu Val Arg Leu Lys Ser Leu Gln 95 85 . 818 Gly Asp Lys Leu Glu Val Ser Leu Lys Asn Asn Val Val Ser Val Asn E--> 819 100 105 821 Lys Glu Pro Val Ala Glu Pro Asp Ile Met Ala Thr Asn Gly Val Val E--> 822 120 824 His Val Ile Thr Asn Val Leu Gln Pro Pro Ala Asn Leu Thr Pro Pro 135 E--> 825 130 827 Met Gly Thr Val Met Asp Val Leu Lys Gly Asp Asn Arg Phe Ser Met . 160 830 Leu Val Ala Ala Ile Gln Ser Ala Gly Leu Thr Glu Thr Leu Asn Arg 175 833 Glu Gly Val Tyr Thr Val Phe Ala Pro Thr Asn Glu Ala Phe Arg Ala E--> 834 180 185 836 Leu Pro Pro Arg Glu Arg Ser Arg Leu Leu Gly Asp Ala Lys Glu Leu 200 839 Ala Asn Ile Leu Lys Tyr His Ile Gly Asp Glu Ile Leu Val Ser Gly

Input Set : A:\PTO.RJ.txt

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E>		a1	210		71.	T	77.7	7	215	T	0	T	~1 ~	~1	220	T	T 011		•
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E>				_	_	_		230			_			235	61	.	**- 7		240
		GIu	Val	Ser	Leu	_		Asn	vaı	vaı	Ser			ьys	GIU	Pro	vaı		
E>				_	_		245			_			250				_,	255	
		Ala	Glu	Pro			Met	Ala	Thr	Asn	_		Val	His	Val	Ile		•	
E>			•			260						55					270		
	851	Asn	Val	Leu	Gln	Pro	Pro	Ala	Asn	Leu	Thr	Pro	Pro	Met	Gly	Thr	Val		
E>	852			27	75					280)					285			
	854	Met	Asp	Val	Leu	Lys	Gly	Asp	Asn	Arg	Phe	Ser	Met	Leu	Val	Ala	Ala		
E>	855		290						295						300				
	857	Ile	Gln	Ser	Ala	Gly	Leu	Thr	Glu	Thr	Leu	Asn	Arg	Glu	Gly	Val	Tyr		
E>						_		310						315	_		_		320
			Val	Phe	Ala	Pro	Thr	Asn	Glu	Ala	Phe	Ara	Ala	Leu	Pro	Pro	Ara		
E>							325						330				5	335	
		Glu	Ara	Ser	Ara			Glv	Asp	Ala	Lvs			Ala	Asn	Ile	Leu		
E>		010		-	_	40		0-1			34						350		
		T.379	ጥኒፖ	Hie	_		Δsn	Glu	Tle	T.e.i			Glv	Glv	Tle	Gly			
E>		цуз	- y -	35!		Ory	TIDP	GIU	110	360		DCI	O±,	O- y		365			
15>		T.011	Wal.			Tare	Ser	T.011	Gln			Larg	T.011	Glu	Val	Ser	Leu		
E>		пец	370	. –	пец	шуз	DCI	шец	375	Gry	лър	цуз	пси	GIU	380	DCI	<u> </u>		•
B>		Larc			17 = 1	V-1	Sar	val		Luc	Glu	Dro	Val	Δla		Pro	Agn		
E>		_	ASII	ASII	vaı	vai		390	TOIL	цуз	Giu	FIQ		395	Giu	110	пър		400
6>			Mot	ת דת	Th~	Λαn			17 a 3	· Uic	77-1	Tla			V-1	Leu	Gln		400
.		116	Mec	MIA	1111		405	vaı	vai	nis	vai	41		Apii	vai	Бец	GIII	415	
E>		Dro	Dro	77-	7 an			Dro.	Dro	Mot	C117			Mot	λαο	Val	T.011	413	
E>		PIO	PIO	Ата		20	1111	PIO	PIO	Met	42		vai	Mec	Asp	vaı	430		
B>		T ***	C1	7 an			Dho	C02	Mot	T 011			ת ות	тіс	Cln	Ser			
E>		пур	GIY	43!		Arg	PILE	Ser	Met	. 44(мта	ATQ	116	GIII	445	AIG		
B>		C1	T 011			The se	T 011	7 cm	7 ~~			77-1	П	Thr	Val.	Phe	חות		
17 .		GIY	450		GIU	1111	ьеи	ASII	455	GIU	GIY	vai	ıyı	1111	460	FIIE	AIA		
臣>		Dro			C1	חות	Dho	7~~		T 011	Dro	Dro	71 ***	Cl.		802	λνα		
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E>			T 011	C1	7 00	71-			T 011	ת דת	7 an	Tla			Пага	uic	тла		400
		пец	пеи	GLY	Asp		_	GIU	ьeu	Ата	ASII	49		пуъ	тут	His	116	495	
E>		~1	7 00	~1	т1.		485 3721	Com	C1	C1	т1.			T 011	v-1	7 ~~	T 011	493	
.		GTA	Asp	GIU			vai	ser	GIY	GLY		_	Ата	neu	vai	Arg	510		
E>		T	Com	т		00	7 ~~	T	T 011	~1. ,)5 Som	T 011	Tira	7 ~~	7 an			
		гуя	ser			GIY	Asp	цуѕ	пеп			ser	ьеα	цуѕ	ASII	Asn	vai		
E>		777	C	515		T	~1	Dwa	1707	520		Dwo	7.00	т1 о	Mot	525	The		
		vaı			ASII	гуѕ	GIU	PIO		Ala	GIU	PIO	Asp	116		Ala	1111		
E>			530		**- *	*** -	**- 7	- 1-	535	3	17- 1	T	~1	D	540	77.	7		
-			GIY	vai	vaı	HIS			Thr							Ala			560
E>								550					:	555					560
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RAW SEQUENCE LISTING

DATE: 02/27/2007

PATENT APPLICATION: US/10/511,719A

Same Eug.

TIME: 11:08:37

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\02272007\J511719A.raw

E--> 913 1 916 <210> SEQ ID NO: 12 917 <211> LENGTH: 4 918 <212> TYPE: PRT 919 <213> ORGANISM: Reptide 921 <400> SEQUENCE: 12 922 Glu Pro Asp Ile 923

E--> 927 19 E--> 930 1

file://C:\CRF4\Outhold\VsrJ511719A.htm

VERIFICATION SUMMARYDATE: 02/27/2007PATENT APPLICATION: US/10/511,719ATIME: 11:08:38

Input Set : A:\PTO.RJ.txt

L:927 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:12

M:332 Repeated in SeqNo=12

Output Set: N:\CRF4\02272007\J511719A.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:20 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1 M:332 Repeated in SeqNo=1 L:259 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3 M:332 Repeated in SeqNo=3 L:452 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:5 M:332 Repeated in SeqNo=5 L:606 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:7 M:332 Repeated in SeqNo=7 L:644 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:8 M:332 Repeated in SeqNo=8 L:709 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:9 M:332 Repeated in SeqNo=9 L:801 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:10 M:332 Repeated in SeqNo=10 L:913 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:11